



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/507,351	02/10/2005	Allan L Schaefer	23-02	5654

23713 7590 01/25/2007
GREENLEE WINNER AND SULLIVAN P C
4875 PEARL EAST CIRCLE
SUITE 200
BOULDER, CO 80301

EXAMINER

AGRAWAL, RITESH

ART UNIT	PAPER NUMBER
----------	--------------

1631

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
31 DAYS	01/25/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/507,351

Applicant(s)

SCHAEFER ET AL.

Examiner

Ritesh Agrawal

Art Unit

1631

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-41 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☐ Claim(s) ____ is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☒ Claim(s) 1-41 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Election/Restrictions

Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Group I, claim(s) 1-20, drawn to a method for predicting an unknown value of a property of a velvet antler.

Group II, claim(s) 21-25, drawn to a method for predicting a property of a velvet antler.

Group III, claim(s) 26-34, drawn to predicting maturity of a velvet antler *in vivo*.

Group IV, claim(s) 35-41, drawn to an apparatus for predicting an internal composition characteristic of a velvet antler.

The inventions listed as Groups I-IV do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons:

The shared technical feature is the analysis of features of velvet antlers.

However, this doesn't represent a special technical feature because it does not represent a contribution over the prior art. For example, Cho et al. (IDS, Microchemical Journal, Vol. 68, pages 189-195, 2001) disclose analysis of habitat (country of origin) and ash content of velvet antlers (see abstract).

Art Unit: 1631

This application contains claims directed to more than one species of the generic invention. These species are deemed to lack unity of invention because they are not so linked as to form a single general inventive concept under PCT Rule 13.1.

The species are as follows:

For Group I:

First set of species:

A) moisture content

B) ash content

C) protein

D) fat

E) amino acids

F) growth factors

G) location

H) amount of calcification

Applicant is required, in reply to this action, to elect a single species to which the claims shall be restricted if no generic claim is finally held to be allowable. The reply must also identify the claims readable on the elected species, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered non-responsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims

Art Unit: 1631

are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

The claims are deemed to correspond to the species listed above in the following manner:

Claim 2 is a markush claim covering the various species. Claim 3 and 18 comprise species of claim 2.

The following claim(s) are generic: claim 1, 2.

The species listed above do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, the species lack the same or corresponding special technical features for the following reasons:

They represent different composition characteristics. This shared feature does not represent a special technical feature because composition characteristics are known in the art (for example, see, Cho et al. as cited above).

Furthermore, upon the election of a species from claim 2, claim 3 will be withdrawn from consideration because applicant will have already elected a composition characteristic for examination. Should applicant elect a composition characteristic other than ash content, claim 18 shall also be withdrawn from consideration since applicant will have directed examination to a composition characteristic other than ash content.

Second set of species:

I) animal weight

J) animal age

K) species type

L) genetic bread

Art Unit: 1631

M) antler length

N) antler width

O) antler circumference

P) antler geometric measure

Q) antler surface to volume ratio

R) button drop dates

S) time of year

T) photoperiod

Applicant is required, in reply to this action, to elect a single species to which the claims shall be restricted if no generic claim is finally held to be allowable. The reply must also identify the claims readable on the elected species, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered non-responsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

The claims are deemed to correspond to the species listed above in the following manner:

Claim 5 is a markush claim covering the various species.

The following claim(s) are generic: claim 5.

Art Unit: 1631

The species listed above do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, the species lack the same or corresponding special technical features for the following reasons:

They represent different input variables. This shared feature does not represent a special technical feature because input variables are known in the art (for example, see, Cho et al., page 190, 2nd column, 2nd paragraph, lines 1-2).

Third set of species:

U) manitobensis

V) nelsoni

W) roosevelti

X) scoticus

Y) xanthopygus

Z) canadensis

AA) hortulorum

AB) nippon

AC) russa

AD) unicolor

AE) timorensis

AF) mariannus

AG) duvauceli

AH) schomburgki

AI) eldi

AJ) albirostris

Art Unit: 1631

AK) alces

AL) axis

AM) dichotomus

AN) capreolus

AO) dama

AP) davidianus

AQ) antisensis

AR) biscalus

AS) americana

AT) gouazoubira

AU) rufina

AV) chunyi

AW) hemionus

AX) virginianus

AY) bezoarticus

AZ) pudu

AAA) mephistophiles

AAB) tarandus

Applicant is required, in reply to this action, to elect a single species to which the claims shall be restricted if no generic claim is finally held to be allowable. The reply must also identify the claims readable on the elected species, including any claims

Art Unit: 1631

subsequently added. An argument that a claim is allowable or that all claims are generic is considered non-responsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

The claims are deemed to correspond to the species listed above in the following manner:

Claim 6 is a markush claim covering the various species.

The following claim(s) are generic: claim 6.

The species listed above do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, the species lack the same or corresponding special technical features for the following reasons:

They represent different species of deer. This shared feature does not represent a special technical feature because species of deer are known in the art (for example, see, Cho et al., title).

Fourth set of species:

AAC) multiple linear regression

AAD) cluster analysis

AAE) discriminate analysis

AAF) curve fitting

AAG) ranking

AAH) artificial neural network

Art Unit: 1631

Applicant is required, in reply to this action, to elect a single species to which the claims shall be restricted if no generic claim is finally held to be allowable. The reply must also identify the claims readable on the elected species, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered non-responsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

The claims are deemed to correspond to the species listed above in the following manner:

Claim 10 is a markush claim covering the various species.

The following claim(s) are generic: claim 10.

The species listed above do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, the species lack the same or corresponding special technical features for the following reasons:

They represent different statistical analysis techniques. This shared feature does not represent a special technical feature because statistical analysis techniques are known in the art (for example, see, Cho et al., abstract).

Fifth set of species:

AAI) image obtained *in vivo*

AAJ) image obtained *in vitro*

Art Unit: 1631

Applicant is required, in reply to this action, to elect a single species to which the claims shall be restricted if no generic claim is finally held to be allowable. The reply must also identify the claims readable on the elected species, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered non-responsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

The claims are deemed to correspond to the species listed above in the following manner:

Claims 11 and 12 are markush claims covering the various species.

The following claim(s) are generic: claim 11 and 12.

The species listed above do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, the species lack the same or corresponding special technical features for the following reasons:

They represent different methods of analysis. This shared feature does not represent a special technical feature because different methods of analysis are known in the art (for example, see, Cho et al., page 191, 1st column, 1st paragraph, line 10).

Sixth set of species:

AAK) temperature change is cooling

AAL) temperature change is warming

Art Unit: 1631

Applicant is required, in reply to this action, to elect a single species to which the claims shall be restricted if no generic claim is finally held to be allowable. The reply must also identify the claims readable on the elected species, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered non-responsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

The claims are deemed to correspond to the species listed above in the following manner:

Claims 13 and 14 represent species AAK and AAL, respectively.

The following claim(s) are generic: claim 12.

The species listed above do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, the species lack the same or corresponding special technical features for the following reasons:

They represent different temperature changes. This shared feature does not represent a special technical feature because temperature changes are known in the art (for example, see, Cho et al., page 190, 2nd column, 2nd paragraph, lines 17-18).

Furthermore, given that claims 15 and 16 are dependent from claims 13 and 14, respectively, upon the election of species AAK or AAL, the respective dependent claim of the non-elected species will be withdrawn from consideration.

For Group II:

First set of species:

A) manitobensis

B) nelsoni

C) roosevelti

D) scoticus

E) xanthopygus

F) canadensis

G) hortulorum

H) nippon

I) russa

J) unicolor

K) timorensis

L) mariannus

M) duvauceli

N) schomburgki

O) eldi

P) albirostris

Q) alces

R) axis

S) dichotomus

Art Unit: 1631

T) capreolus

U) dama

V) davidianus

W) antisensis

X) biscalus

Y) americana

Z) gouazoubira

AA) rufina

AB) chunyi

AC) hemionus

AD) virginianus

AE) bezoarticus

AF) pudu

AG) mephistophiles

AH) tarandus

Applicant is required, in reply to this action, to elect a single species to which the claims shall be restricted if no generic claim is finally held to be allowable. The reply must also identify the claims readable on the elected species, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered non-responsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include

Art Unit: 1631

all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

The claims are deemed to correspond to the species listed above in the following manner:

Claim 24 is a markush claim covering the various species.

The following claim(s) are generic: claim 24.

The species listed above do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, the species lack the same or corresponding special technical features for the following reasons:

They represent different species of deer. This shared feature does not represent a special technical feature because species of deer are known in the art (for example, see, Cho et al., title).

For Group III:

First set of species:

A) manitobensis

B) nelsoni

C) roosevelti

D) scoticus

E) xanthopygus

F) canadensis

G) hortulorum

H) nippon

I) russa

Art Unit: 1631

J) unicolor

K) timorensis

L) mariannus

M) duvauceli

N) schomburgki

O) eldi

P) albirostris

Q) alces

R) axis

S) dichotomus

T) capreolus

U) dama

V) davidianus

W) antisensis

X) bisculus

Y) americana

Z) gouazoubira

AA) rufina

AB) chunyi

AC) hemionus

AD) virginianus

AE) bezoarticus

Art Unit: 1631

AF) pudu

AG) mephistophiles

AH) tarandus

Applicant is required, in reply to this action, to elect a single species to which the claims shall be restricted if no generic claim is finally held to be allowable. The reply must also identify the claims readable on the elected species, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered non-responsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

The claims are deemed to correspond to the species listed above in the following manner:

Claim 27 is a markush claim covering the various species.

The following claim(s) are generic: claim 27.

The species listed above do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, the species lack the same or corresponding special technical features for the following reasons:

They represent different species of deer. This shared feature does not represent a special technical feature because species of deer are known in the art (for example, see, Cho et al., title).

Second set of species:

Art Unit: 1631

AI) image obtained *in vivo*

AJ) image obtained *in vitro*

Applicant is required, in reply to this action, to elect a single species to which the claims shall be restricted if no generic claim is finally held to be allowable. The reply must also identify the claims readable on the elected species, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered non-responsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

The claims are deemed to correspond to the species listed above in the following manner:

Claims 31 and 32 are markush claims covering the various species.

The following claim(s) are generic: claim 31 and 32.

The species listed above do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, the species lack the same or corresponding special technical features for the following reasons:

They represent different methods of analysis. This shared feature does not represent a special technical feature because different methods of analysis are known in the art (for example, see, Cho et al., page 191, 1st column, 1st paragraph, line 10).

Third set of species:

AK) temperature change is cooling

Art Unit: 1631

AL) temperature change is warming

Applicant is required, in reply to this action, to elect a single species to which the claims shall be restricted if no generic claim is finally held to be allowable. The reply must also identify the claims readable on the elected species, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered non-responsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

The claims are deemed to correspond to the species listed above in the following manner:

Claims 33 and 34 represent species AK and AL, respectively.

The following claim(s) are generic: claim 32.

The species listed above do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, the species lack the same or corresponding special technical features for the following reasons:

They represent different temperature changes. This shared feature does not represent a special technical feature because temperature changes are known in the art (for example, see, Cho et al., page 190, 2nd column, 2nd paragraph, lines 17-18).

For Group IV:

First set of species:

A) moisture content

- B) ash content
- C) protein
- D) fat
- E) amino acids
- F) growth factors
- G) location
- H) amount of calcification

Applicant is required, in reply to this action, to elect a single species to which the claims shall be restricted if no generic claim is finally held to be allowable. The reply must also identify the claims readable on the elected species, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered non-responsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

The claims are deemed to correspond to the species listed above in the following manner:

Claim 36 is a markush claim covering the various species. Claim 37 and 18 comprises a species of claim 36.

The following claim(s) are generic: claim 35, 36.

Art Unit: 1631

The species listed above do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, the species lack the same or corresponding special technical features for the following reasons:

They represent different composition characteristics. This shared feature does not represent a special technical feature because composition characteristics are known in the art (for example, see, Cho et al. as cited above).

Furthermore, upon the election of a species from claim 36, claim 37 will be withdrawn from consideration because applicant will have already elected a composition characteristic for examination.

Second set of species:

I) animal weight

J) animal age

K) species type

L) genetic breed

M) antler length

N) antler width

O) antler circumference

P) antler geometric measure

Q) antler surface to volume ratio

R) button drop dates

S) time of year

T) photoperiod

Art Unit: 1631

Applicant is required, in reply to this action, to elect a single species to which the claims shall be restricted if no generic claim is finally held to be allowable. The reply must also identify the claims readable on the elected species, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered non-responsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

The claims are deemed to correspond to the species listed above in the following manner:

Claim 39 is a markush claim covering the various species.

The following claim(s) are generic: claim 39.

The species listed above do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, the species lack the same or corresponding special technical features for the following reasons:

They represent different input variables. This shared feature does not represent a special technical feature because input variables are known in the art (for example, see, Cho et al., page 190, 2nd column, 2nd paragraph, lines 1-2).

Applicant is advised that the reply to this requirement to be complete must include (i) an election of a species or invention to be examined even though the requirement be traversed (37 CFR 1.143) and (ii) identification of the claims encompassing the elected invention.

The election of an invention or species may be made with or without traverse. To reserve a right to petition, the election must be made with traverse. If the reply does not distinctly and specifically point out supposed errors in the restriction requirement, the election shall be treated as an election without traverse.

Should applicant traverse on the ground that the inventions or species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the inventions or species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C.103(a) of the other invention.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ritesh Agrawal whose telephone number is (571) 272-2906. The examiner can normally be reached on 8:30 AM - 5:00 PM M-F.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Wang can be reached on 571-272-0811. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1631

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Ritesh Agrawal, PhD

RA

 1/20/07
SHUBO (JOE) ZHOU, PH.D.
PATENT EXAMINER